

Application No. : 09/890,366
Filing Date : July 26, 2001
Amdt. Dated : April 9, 2004
Reply To O.A. Dated : May 9, 2003

Amendments To The Claims

The listing of claims will replace all prior versions and listings of claims in the application. The listing of claims present each claim with its respective status shown in parentheses. Only those claims being amended herein show their changes in highlighted form, i.e., insertions appear as underlined text (e.g., insertions) while deletions appear as strikethrough text (e.g., ~~deletions~~) or double-bracketed text (e.g., [[deletions]]). All original claims and previously presented claims appear as clean text.

In the following list, Claim 1 is currently amended. Claim 2 is canceled herein. Claim 3 was previously canceled. New Claims 4 and 5 are added herein.

Claim 1 (Currently Amended) A method of manufacturing fine particles including metallic particles, ceramic particles, glass particles or composite particles non-agglomerate and smaller nanoparticles at higher concentrations than a conventional flame method, comprising the steps of:

supplying particle-forming reactants into a flame formed in a burner;
generating particle nuclei from the reactants, which form aggregates by colliding with each other in the flame; and

irradiating at least one laser beam into [[the]] gas-borne aggregates in the flame so that the temperature of the aggregates rapidly increases and the aggregates are fused and sintered into fine particles in the non-agglomerate nanoparticles having smaller collision cross sections which finally cause the synthesis of non-agglomerate and smaller nanoparticles at higher concentrations.

Claim 2 (Canceled)

Claim 3 (Canceled)

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Claim 4 (New) The method according to Claim 1, further comprising transforming a crystalline phase of nanoparticles into another crystalline phase of nanoparticles.

Claim 5 (New) The method according to Claim 1, wherein the nanoparticles are metallic particles, ceramic particles, glass particles or composite particles.